In the Claims:

Please cancel claims 1-3, 12-14, and 23-25, and amend claims 4, 5, 9, 11, 15, 16, 20, 22, 26, 27, 31, and 33 without disclaimer or prejudice.

Claim 1-3: (cancelled)

4. (currently amended) ~~A transmission power control method according to claim 3,~~ A transmission power control method for a CDMA communication system which performs communication between a basestation and a plurality of mobile stations; the transmission power control method comprising the steps of:

receiving and measuring an uplink power transmitted from each of the plurality of mobile stations with a received SIR and a SIR requirement threshold at the basestation; and

taking an iterative algorithm to get a convergent transmitted power;

wherein (i) the iterative algorithm expresses that a (n+1)th transmitted power of the mobile station i equals a convergence factor multiplied with a (n)th transmitted power of the mobile station i, (ii) the convergence factor at the nth iteration equals a power convergence factor $c^{(n)}$ at the nth iteration over a determined factor ($\rho^{(n)}$) at the nth iteration, (iii) the determined factor ($\rho^{(n)}$) equals the received SIR of mobile station i at the nth iteration ($\gamma_i^{(n)}$) over the SIR requirement threshold at the basestation for mobile station i (β_i), and (iv)~~wherein~~ the ~~iterative method~~iterative algorithm at the nth iteration further chooses the power convergence factor ($c^{(n)}$) at the nth iteration similar to the determined factor ($\rho^{(n)}$) at the nth iteration, i.e.

$$c^{(n)} \approx \rho_i^{(n)} = \left(\frac{\gamma_i^{(n)}}{\beta_i} \right).$$

5. (currently amended) A transmission power control method according to claim[[1]] 4, wherein the power convergence factor is determined from the local information of the received SIR and the SIR requirement threshold in a target cell.

6. (original) A transmission power control method according to claim 5, wherein the power convergence factor is the maximum value of

$$\left(\frac{\gamma_j^{n)}}{\beta_j} \right)$$

of all the mobile stations in the target cell.

7. (original) A transmission power control method according to claim 5, wherein the power convergence factor is the minimum value of

$$\left(\frac{\gamma_j^{n)}}{\beta_j} \right)$$

of all the mobile stations in the target cell.

8. (original) A transmission power control method according to claim 5, wherein the power convergence factor is the average value of

$$\left(\frac{\gamma_j^{(n)}}{\beta_j} \right)$$

of all the mobile stations in the target cell.

9. (currently amended) A transmission power control method according to claim [[1]] 4, wherein the algorithm is simulated under conditions of:

assuming that there are M mobile stations uniformly distributed in each cell with different SIR requirement thresholds; and

applying the large-scale fading propagation model in the uplink.

10. (original) A transmission power control method according to claim 9, wherein the large-scale fading propagation model is assumed to be fixed for any particular mobile during the calculating cycle but it is variant for each mobile use.

11. (currently amended) A transmission power control method according to claim [[1]] 4, wherein the CDMA communication system is a direct-sequence CDMA communication system.

Claims 12-14 (cancelled)

15. (currently amended) ~~A system according to claim 14~~A system to achieving a transmission power control for a CDMA communication system which performs communication between a basestation and a plurality of mobile stations; the system comprising:

means for receiving and measuring the uplink power transmitted from each of the

plurality of mobile stations with a received SIR and a SIR requirement threshold at the basestation; and

means for taking an iterative algorithm to get a convergent transmitted power;

wherein (i) the iterative algorithm means that a (n+1) transmitted power of the mobile station i equals a convergence factor multiplied with a (n) transmitted power of the mobile station i, (ii) the convergence factor at the nth iteration equals a power convergence factor $c^{(n)}$ at the nth iteration over a determined factor ($\rho^{(n)}$) at the nth iteration, (iii) the determined factor ($\rho^{(n)}$) equals the received SIR of mobile station i at the nth iteration ($\gamma_i^{(n)}$) over the SIR requirement threshold at the basestation for mobile station i (β_i), ~~, wherein~~ and (iv) the ~~iterative method~~iterative algorithm at the nth iteration further chooses the power convergence factor ($c^{(n)}$) at the nth iteration similar to the determined factor ($\rho^{(n)}$) at the nth iteration, i.e.

$$c^{(n)} \approx \rho_i^{(n)} = \left(\frac{\gamma_i^{(n)}}{\beta_i} \right).$$

16. (currently amended) A system according to claim [[13]] 15, wherein the power convergence factor is determined from a local information of the received SIR and the SIR requirement threshold in a target cell.

17. (original) A system according to claim 16, wherein the power convergence factor is the maximum value of

$$\left(\frac{\gamma_j^{(n)}}{\beta_j} \right)$$

of all the mobile stations in the target cell.

18. (original) A system according to claim 16, wherein the power convergence factor is the minimum value of

$$\left(\frac{\gamma_j^{(n)}}{\beta_j} \right)$$

of all the mobile stations in the target cell.

19. (original) A system according to claim 16, wherein the power convergence factor is the average value of

$$\left(\frac{\gamma_j^{(n)}}{\beta_j} \right)$$

of all the mobile stations in the target cell.

20. (currently amended) A system according to claim [[13]] <u>15</u>, wherein the algorithm is simulated under conditions of:

assuming that there are M mobile stations uniformly distributed in each cell with different SIR requirement thresholds; and

applying the large-scale fading propagation model in the uplink.

21. (original) A system according to claim 20, wherein the large-scale fading

propagation model is assumed to be fixed for any particular mobile during the calculating cycle but it is variant for each mobile use.

22. (currently amended) A system according to claim [[13]] 15, wherein the CDMA communication system is a direct-sequence CDMA communication system.

Claims 23-25 (cancelled)

26. (currently amended) ~~A basestation according to claim 25~~ A basestation for communicating with a plurality of mobile terminals in a CDMA communication system, comprising:

means for receiving and measuring an uplink power transmitted from each of the plurality of mobile stations with a received SIR and a SIR requirement thresholds at the basestation; and

means for taking an iterative algorithm to get a convergent transmitted power;

wherein (i) the iterative algorithm means that a (n+1) transmitted power of the mobile station i equals a convergence factor multiplied with a (n) transmitted power of the mobile station i, (ii) the convergence factor at the nth iteration equals a power convergence factor $c^{(n)}$ at the nth iteration over a determined factor ($\rho^{(n)}$) at the nth iteration, (iii) the determined factor $\rho^{(n)}$ equals the received SIR of mobile station i at the nth iteration $\gamma_i^{(n)}$ over the SIR requirement threshold at the basestation for mobile station i β_i, ~~wherein~~ and (iv) the ~~iterative method~~iterative

algorithm at the nth iteration further chooses the power convergence factor $c^{(n)}$ at the nth iteration similar to the determined factor $\rho^{(n)}$ at the nth iteration, i.e.

$$c^{(n)} \approx \rho_i^{(n)} = \left(\frac{\gamma_i^{(n)}}{\beta_i} \right).$$

27. (currently amended) A basestation according to claim [[24]] 26, wherein the power convergence factor is determined from a local information of the received SIR and the SIR requirement threshold in a target cell.

28. (original) A basestation according to claim 27, wherein the power convergence factor is the maximum value of

$$\left(\frac{\gamma_j^{(n)}}{\beta_j} \right)$$

of all the mobile stations in the target cell.

29. (original) A basestation according to claim 27, wherein the power convergence factor is the minimum value of

$$\left(\frac{\gamma_j^{(n)}}{\beta_j} \right)$$

of all the mobile stations in the target cell.

30. (original) A system according to claim 27, wherein the power convergence factor

is the average value of

$$\left(\frac{\gamma_j^{(n)}}{\beta_j} \right)$$

of all the mobile stations in the target cell.

31. (currently amended) A basestation according to claim [[23]] 26, wherein the algorithm is simulated under conditions of:

assuming that there are M mobile stations uniformly distributed in each cell with different SIR requirement thresholds;

applying the large-scale fading propagation model in the uplink.

32. (original) A basestation according to claim 31, wherein the large-scale fading propagation model is assumed to be fixed for any particular mobile during the calculating cycle but it is variant for each mobile use.

33. (currently amended) A basestation according to claim [[23]] 26, wherein the CDMA communication system is a direct-sequence CDMA communication system.